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## How Mothers' Parenting Styles Affect Their Children's Sexual Efficacy and Experience

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**ABSTRACT.** The relations among mothers' parenting styles and adolescents' sexual self-efficacy and sexual experience were examined in a sample of 253 British adolescent-mother pairs. Also explored was whether adolescents' self-efficacy would be positively or negatively related to their sexual experience. Mothers' parenting styles were expected to influence children's locus of control, based on the theory that mothers who are involved with their children and mothers who stress independence contribute to the development of an internal locus of control in their children, increasing the children's feelings of sexual self-efficacy. Structural equation modeling was used to test a longitudinal model. The results support the assumption that maternal involvement leads to higher levels of self-efficacy, whereas maternal control was associated with lower levels of self-efficacy. Sexual self-efficacy was associated with higher levels of sexual experience. Implications and limitations of the study are discussed.

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THE RELATIONSHIPS AMONG adolescents' sexual experience, their self-efficacy regarding sexual issues, and the way their mothers interact with them were examined in this study. Folk theory—encoded in proverbs such as “Spare the rod and spoil the child” and “Strict fathers have filial children” (cf. Palacios, 1996)—and a body of research (e.g., Deci, Schwartz, Sheinman, & Ryan, 1981; Dweck & Elliott, 1983; Grolnick, Deci, & Ryan, 1991; Grolnick & Ryan, 1989; Rollins & Thomas, 1979; Taris & Bok, 1996; Taris & Semin, *in press*) suggest that parents' styles of interaction profoundly influence the psychosocial maturation of their children, as well as the children's behavior. One line of research has shown that if parents are involved with their children and if the parents—contrary to what many proverbs suggest—do not (overly) control them, their children are more

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likely to develop an internal locus of control (Rotter, 1966); that is, they are more likely to consider themselves as the primary agents controlling their lives, rather than considering others or circumstances as being in control (e.g., Gordon, Nowicki, & Wickern, 1981; Taris & Bok, 1996).

A second line of research has linked parental rearing styles to adolescent sexual behavior. Previous studies have shown that in families where parent-child communication is characterized by warmth, openness, and mutual understanding, the adolescent's transition to nonvirginity seems to be delayed (Barnes & Farrell, 1992; Inazu & Fox, 1980; Miller & Simon, 1974), and levels of adolescent sexual permissiveness and parent-child disagreement about sexual issues are lower in such families (Taris & Semin, *in press*; Taris, Semin, & Bok, *in press*). Thus, there seems to be ample evidence for the assumption that parenting styles affect adolescent sexual behavior. The main problem in this line of research is that although the relationship between these two concepts has been amply demonstrated, it remains unclear how parenting styles affect adolescent sexual behavior and which variables mediate this relationship. There is some evidence that transmission of attitudes may be of relevance (e.g., Burgess, 1973; DeLamater & MacCorquodale, 1979; Fisher, 1986; Taris & Semin, *in press*), but the proportions of explained variance reported in those studies suggest that other variables may be more important than parent-to-child transmission of sexual attitudes.

In the present study, we attempted to link these two lines of research. The basic question we addressed is whether the relationship between mothers' style of interaction with their children and their children's sexual experience is mediated by the adolescents' sexual self-efficacy, that is, the degree to which adolescents feel able to discuss sexually sensitive issues with a potential sexual partner. The answer to this question may have considerable theoretical and practical implications for understanding the relation between parenting styles and adolescent sexual experience, yet we are not aware of other studies that have explicitly addressed this issue.

Moreover, much of the evidence on the relation between parenting styles and sexual experience stems from cross-sectional and/or retrospective studies (with the notable exception of the classic studies by Jessor and Jessor, 1974, 1975). In cross-sectional studies, the causal direction among the constructs cannot properly be unraveled, whereas retrospective reports may be distorted by memory effects (see Schwarz & Sudman, 1994). Though the evidence presented in such studies is suggestive, a true longitudinal design is better suited to unravel the causal relations between parenting styles, on the one hand, and sexual self-efficacy and experience on the other. Indeed, as Breakwell and Fife-Shaw (1992) pointed out, given the advantages of longitudinal research, it is remarkable that so few studies use a longitudinal design.

In short, then, we undertook a longitudinal investigation of (a) whether parenting styles affect the sexual experience of a sample of adolescents and (b) whether the relations between parenting style and children's sexual experience

are mediated by sexual efficacy. Our goal was to contribute to the understanding of the interplay between the characteristics of the home environment and adolescents' sexual attitudes and sexual experience.

### *Parenting Styles: Care Versus Control*

Previous research has tended to assign parents' styles of interaction with their children to one of two broad dimensions: (a) care/involvement versus indifference/rejection (including behaviors and attitudes of care, affection, sensitivity, cooperation, accessibility, and so on); and (b) control/protection versus encouragement of independence (behaviors and attitudes such as strictness, intrusiveness, control, and overprotection; Barnes & Farrell, 1992; Grolnick et al., 1991; Rollins & Thomas, 1979; Taris & Bok, 1996).

*Care.* A considerable amount of research has dealt with the role of maternal involvement and care in the psychosexual development of a child. This construct is defined as "behavior manifest by a parent toward a child that makes the child comfortable in the presence of the parent and confirms in the child's mind that he is basically accepted and approved as a person by the parent" (Rollins & Thomas, 1979, p. 320). Operationally, this variable focuses on qualities such as whether the adolescent can confide in parents, whether there is love for and feelings of closeness to the parents, and whether such feelings are expressed.

One common line of reasoning that links parental care and involvement to adolescent sexual behavior runs as follows. Parental sexual standards are the earliest to which the child is exposed and provide the basis for subsequent sociosexual development (DeLamater & MacCorquodale, 1979). Parent-child relationships characterized by mutual understanding and involvement are conducive to the internalization of parental standards (Inazu & Fox, 1980; Jessor & Jessor, 1974; Taris et al., in press). Because parental sexual attitudes are generally more conservative than the average teenager's standards, adolescents who have a good relation with their parents would thus be sexually less permissive and sexually less experienced than the "average" adolescent. Naturally, it may be difficult to realize one's intentions and attitudes, especially when it comes to teenage sexual behavior. Teenage sexual behavior is a dyadic event characterized by uncertainties in both parties concerning what "ought" to be done under various circumstances (Loewenstein & Furstenberg, 1991). And, as Taris and Semin (1995) indicated, "overpowering" circumstances—alcohol, pressure from one's partner, examples set by others in one's vicinity—may lead teenagers to sexual behaviors that are more intimate than they had initially intended. Thus, there is reason to believe that the effect of parenting styles on teenage sexual behavior via transmission of sexual attitudes is relatively small.

A potentially more important factor in determining teenage sexual behavior is the degree to which teenagers feel able to influence what happens to them, espe-

cially in the domain of adolescent sexual behavior. Research in other fields (mainly scholastic achievement) has suggested that mothers who show their involvement with and care for their children contribute to the development of an internal locus of control, that is, their children are more likely to consider themselves as the primary agent controlling what happens in their lives (Gordon et al., 1981; Grolnick et al., 1991; Rollins & Thomas, 1979; Taris & Bok, 1996). If this process can be generalized to the area of sexual behavior, children of caring mothers would be expected to have an internal locus of control, and such children would feel sexually more efficacious, in terms of realizing what they want from a relationship, than others.

*Control.* There is a widespread belief that a lack of parental control is at least partly responsible for adolescents' involvement in sex at a young age. Newcomer and Udry (1987) cited diminished parental control over adolescent behavior during marital disruption or separation as a reason for increased levels of sexual activity among adolescents from disrupted and one-parent homes (cf. Miller & Fox, 1987). Jessor and Jessor (1975) reported lower levels of perceived parental control among nonvirgins than among virgins, and Hogan and Kitagawa (1985) found that perceived parental control of early dating was negatively related to rates of teenage pregnancy. Finally, Barnes and Farrell (1992) reported that their measure of "adolescent deviance" (including "having sexual relations with someone" as one of the more serious deviant behaviors) was negatively associated with the amount of parental monitoring of the adolescent's behavior.

Although controlling adolescents' sexual behavior by exerting control and setting rules appears to be effective, from a different angle parental supervision and control could be potentially harmful to children's sociosexual development. One robust finding across studies is that too much protection/control by parents may withhold from a child the opportunity to develop an internal locus of control (Gordon et al., 1981; Grolnick et al., 1991; Rollins & Thomas, 1979; Taris & Bok, 1996). If parental control leads to an external locus of control, adolescents whose parents firmly control their sexual behavior would be expected (a) to have less opportunity to become sexually experienced, and this would account for the direct negative effect of parental control upon adolescent sexual experience; and (b) to be relatively subject to the external pressures exerted upon them and less able to do what they themselves actually want to do if, for example, they are in a situation that could potentially lead to sexual intercourse. This reasoning would thus imply that the relation between parental control and adolescent sexual behavior is mediated by the adolescents' (sexual) locus of control.

Figure 1 presents the core of the model that we explored in this study. We assumed that the two parenting styles (care/involvement and control/protection) affect the adolescent's sexual experience and sexual self-efficacy. High parental control and low parental involvement were expected to lead to lower feelings of sexual efficacy. Regarding the effect of self-efficacy on sexual experience,

we formulated two competing hypotheses. First, higher sexual self-efficacy may enable teenagers to resist the temptations and pressures exerted on them to have sexual intercourse. Alternatively, sexually self-efficacious teenagers may be better able to realize their intentions if they do want to have sex. The first line of reasoning led us to expect a negative effect of adolescent sexual self-efficacy on sexual experience, whereas the second led us to predict the reverse effect.

In addition, we needed to control whether the adolescent had a steady partner relationship, because having such a relationship (a) increases an adolescent's opportunities to have sex (cf. Taris & Semin, 1997) and (b) may also be related to the parents' styles of raising children (e.g., overprotective parents may forbid their child to maintain a relationship from fear that this relation will prematurely evolve into a sexual one).

We also explored the effects of socioeconomic background, gender, and age. These variables are usually related to (sexual) attitudes and parenting styles, and they therefore need to be controlled to obtain unbiased estimates of the effects among parenting styles, adolescent sexual experience, and adolescent sexual self-efficacy.

## **Method**

### *Sample*

The data were collected as part of a two-wave panel study. The waves of the study were conducted in 1989 and 1990 in the area around Brighton and Hove, Sussex, England. In the first wave, 333 adolescents aged 15 to 18 years old and their mothers completed a structured questionnaire administered individually in the presence of an interviewer. The questionnaire addressed, among other things, sexual behavior, attitudes toward several sex-related issues, intimate relationships, courtship behavior, and background variables such as age, gender, and socioeconomic status. Fathers were not interviewed.

We used random location sampling to obtain a sample that had socioeconomic characteristics similar to the general population of Brighton and Hove. Within this particular area, there are 603 enumeration districts, of which 594 contain usually resident populations. Each of these could be characterized by particular types of housing stock or neighborhoods (CACI, 1989), which would aggregate into 11 neighborhood groups. Thus, we could categorize people according to the type of residential area they lived in. This classification system, called ACORN, takes into account 40 different variables in the census, including age, sex, and socioeconomic status. A comparison of the ACORN characteristics of the sample with data on the characteristics of all households in Brighton and Hove revealed no major differences between the two. Thus, there was no reason to assume that the sample was not representative of the target population.

Missing responses at the second wave decreased the sample to 255 adolescent-mother pairs. Subsequent analysis of the missing responses showed that attrition was not systematically affected by religion, political preference, or any of the variables used in the present study, and that the sample was still representative of the target population. As a result of listwise deletion of missing values, the final sample size was 253 adolescent-mother pairs (51% of the adolescents were male;  $M_{\text{age}} = 15.80$ ,  $SD = 1.08$ ).

### Variables

*Sexual self-efficacy.* Our main interest in this study concerned the degree to which the adolescents felt able, in a hypothetical relationship, and without damaging the relationship, to ask several sexually sensitive questions of a person (a) whom they have been seeing for about 3 months, (b) to whom they feel attracted, and (c) with whom they might want to sleep. The questions were "Are you going out with somebody else?" "Do you mind us using condoms?" "Have you ever had an AIDS test?" "Have you ever had a sexual relationship with someone of your own sex?" "How many sexual partners have you had?" All items were reverse scored (7 = *would not hesitate to ask this question*, 1 = *would feel unable to ask this question*). The reliability ( $\alpha$ ) of this scale (Cronbach, 1986) was .80 at Time 1 and .77 at Time 2.

*Parenting styles: Control.* We felt that using the adolescents' perceptions of the mothers' parenting styles would present the risk that the correlation between these perceived parenting styles and the other variables would be inflated. Thus, we used a more objective measure of the mothers' parenting styles: asking the mothers themselves about the way they interacted with their children.

Four items tapped the importance the mothers attached to disciplining their children and controlling their behavior: "It is important for parents to discipline their teenage children"; "It is important that teenagers do what their parents tell them"; "It is important that children are brought up to respect authority" (1 = *disagree strongly*, 7 = *agree strongly*); and "How many rules would you say you set for your child?" (1 = *none*, 7 = *a great many*). The reliability of this scale was .70. Before they answered these items, the mothers were explicitly asked to think of the son or daughter who also participated in the survey, and not any of their other children (if they had any).

*Parenting styles: Care/involvement.* This scale consisted of seven items measuring the degree to which the mother felt close to her child, for example, "I always listen to what my son/daughter has to say"; "My son/daughter tells me most of the things that he/she does"; "I try hard to understand my son/daughter"; and "I have a very close relationship with my son/daughter" (1 = *disagree strongly*, 7 = *agree strongly*). The reliability of this scale was .68.

*Other variables.* In addition to the aforementioned variables, the study included measures of the adolescent's gender and age, whether he or she currently had a steady partner relationship (high = yes, available at both occasions), whether he or she had had sexual intercourse (high = yes, available at both occasions), and a measure of the parents' socioeconomic status (SES). Apart from SES, which was a compound of the father's and mother's levels of education, all the variables were measured with a single item. See Table 1 for the means and standard deviations of the variables used in this study.

Comparison of the Time 1 scores on sexual self-efficacy with the Time 2 scores on that variable revealed that the respondents became more sexually self-confident across time ( $M = 3.13$  at Time 1 and  $3.38$  at Time 2),  $t(253) = 2.54$ ,  $p < .05$ . The number of respondents who indicated that they had a steady partner remained the same across time (about 70%). The percentage of sexually experienced respondents increased in 1 year's time from 35% at Time 1 to 61% at Time 2.

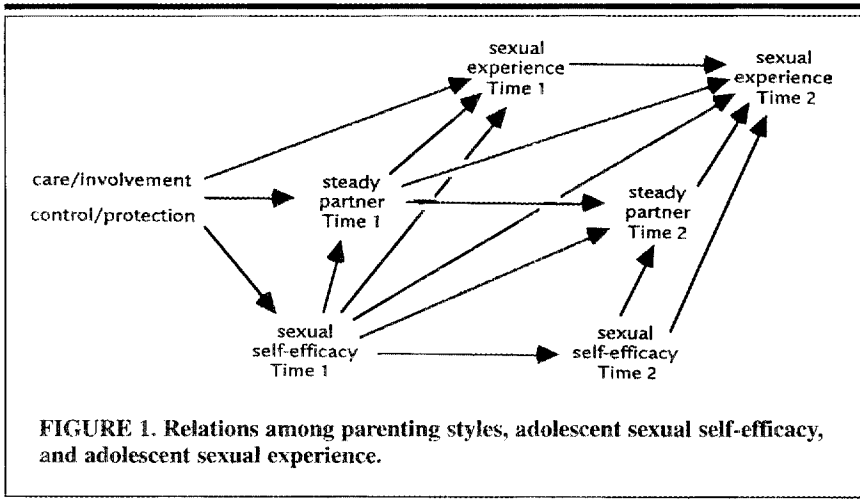
### *Procedure*

The data were analyzed by means of structural equation modeling (Jöreskog & Sörbom, 1993). In this approach, a theoretically grounded model is specified for the relations among the variables, much like in ordinary regression analysis. However, unlike regression analysis, in structural equation modeling the degree to which such a theoretically grounded model fits the data well (the "goodness-of-fit" of a model) can actually be tested, using a range of so-called fit indices. In principle, one expects a model that accurately reflects the mechanism that generated the data to be able to reproduce those data reasonably well. That is, if the parameters that were estimated for the model-as-tested are close to the parameters of the "true" model, the covariance matrix for the variables as reproduced on

**TABLE 1**  
**Means and Standard Deviations of the Variables Used in This Study ( $N = 253$ )**

Variable	<i>M</i>	<i>SD</i>
Time 2 sexual self-efficacy	3.38	1.29
Time 1 sexual self-efficacy	3.13	1.35
Time 2 sexual experience (high = experienced)	.61	.49
Time 1 sexual experience (high = experienced)	.35	.86
Steady partner Time 2 (high = yes)	.32	.47
Steady partner Time 1 (high = yes)	.31	.47
Control (mothers)	2.16	1.30
Involvement (mothers)	4.94	1.17
Age-adolescent	15.80	1.08
Gender-adolescent (high = male)	.51	.76
Socioeconomic status	2.49	1.29





the basis of the first set of parameters should be close to the observed covariance matrix. The difference between both covariance matrices can be assessed using a chi-square test, wherein a high chi-square value indicates that the model that was fitted to the data is far from the true model. If, however, the chi-square value is small, the model cannot be rejected empirically: in that case, the a priori model could well be a good representation of the mechanism that generated the data.

In addition to the chi-square statistic, we used Bentler and Bonett's (1980) non-normed fit index (NNFI) to evaluate model fit. Unlike many other fit indices (including the chi-square test), the NNFI is largely independent from sample size (Marsh, Balla, & McDonald, 1988). Bentler and Bonett (1980) recommended that the NNFI must be .90 or over in order to conclude that a particular model fits the data acceptably well.

The model presented in Figure 1, complemented with effects of the background variables of gender, age, and SES on all six dependent variables, was fitted to the data. As we saw no a priori reasons to assume that the relations among sexual experience, sexual efficacy, and steady partner would be different across occasions, those effects were constrained to be equal across time points. The effects were estimated using least squares estimation, as the model contained several dichotomous variables; default maximum likelihood estimation is quite sensitive to violations of the assumption of normally distributed interval variables, whereas least squares estimation is considerably more robust in this respect (Lohmöller, 1986).

The resulting model fitted the data acceptably well:  $\chi^2(21, N = 253) = 26.67$ ,  $p = .18$ , NNFI = .96. However, in this model several effects were not significantly different from zero. These were omitted one by one. The resulting model yielded a  $\chi^2(31, N = 253)$  value of only 32.73,  $p = .38$ , NNFI = .99. These figures indi-

cate that this model fitted the data rather well and, thus, that the final model could not be rejected empirically.

Follow-up analyses revealed that there was no significant interaction between the two parenting styles (Rollins & Thomas, 1979, recommend that this interaction be routinely checked), and that the adolescent's gender did not affect the strength of the effects of the two parenting styles on the dependent variables (thus, gender did not moderate these effects). Therefore, the fitted model was accepted.

## Results

Regarding the effects of parenting styles, it appears that at Time 1 children of involved mothers were more sexually assertive (a standardized estimate of .16,  $p < .01$ ) and less likely to be sexually experienced ( $-.20$ ,  $p < .01$ ) than children of less involved mothers. Moreover, children of mothers who attached much importance to discipline and setting rules for their children were less assertive (an estimate of  $-.17$ ,  $p < .01$ ) and more likely to be sexually experienced (.19,  $p < .01$ ) than other children. These effects were all in agreement with our expectations. See Table 2 for standardized least squares estimates for the final model.

**TABLE 2**  
Results of a Least Squares LISREL Analysis  
(Final Model, Standardized Effect Estimates)

Variable	Time 2			Time 1		
	Sexual experience	Steady partner	Sexual efficacy	Sexual experience	Steady partner	Sexual efficacy
Time 2 partner	.18*** <sup>a</sup>					
Time 2 efficacy	.15*** <sup>b</sup>	.23*** <sup>c</sup>				
Time 1 experience	.25***					
Time 1 partner	.19*	.31***		.18***		
Time 1 efficacy			.60***	.15*** <sup>b</sup>	.23*** <sup>c</sup>	
Closeness				-.20**		.16**
Control				.19**		-.17**
Gender						-.15**
Age				.20**	.22***	
SES						
R <sup>2</sup>	.24	.17	.37	.16	.10	.08

Note.  $\chi^2(31, N = 253) = 32.73$ ,  $p = .38$ .

<sup>a</sup>Effect of partner upon sexual experience constrained to be equal across occasions. <sup>b</sup>Effect of efficacy upon sexual experience constrained to be equal across occasions. <sup>c</sup>Effect of efficacy upon partner constrained to be equal across occasions.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Within each time point, there are both direct and indirect effects of the adolescents' sexual efficacy on their sexual experience. Sexually efficacious adolescents were more likely to be sexually experienced, as evidenced by a direct standardized effect of .15,  $p < .001$ , as well as an indirect effect (via the presence of a steady partner relationship at Times 1 and 2). Thus, having a partner appeared to increase the chances of being sexually experienced, and being sexually efficacious increased the chances of having a steady partner and being sexually experienced (the reverse hypothesis—that sexually efficacious respondents would be more able to defer unwanted sexual experiences than less efficacious respondents—was, thus, forcefully rejected). This finding applied to both time points.

Of the three dependent variables (sexual experience, sexual efficacy, and steady partner), sexual efficacy seems to have been the most stable (a standardized effect of .60,  $p < .001$ ). (See Table 2 for the lagged effects of the dependent variables upon themselves.) This confirms the finding reported earlier that the number of sexually experienced respondents increased strongly during the observed period, resulting in a low Time 1/Time 2 stability. The same line of reasoning suggests that there is also quite some change across time regarding whether the adolescents currently had a steady partner relationship (yes versus no), as evidenced by a low Time 1/Time 2 effect of .31 ( $p < .001$ ). It is noteworthy that respondents who obtained the same scores at both times (e.g., "has steady partner") may have experienced episodes during which they did not have a steady partner, and vice versa. Thus, the current operationalization overestimates the stability of the respondent's partner relationship.

Interestingly, we also found a cross-lagged effect of Time 1 steady partner on Time 2 sexual experience: Thus, respondents who had a steady partner at Time 1 were more likely to be nonvirgins at Time 2, controlling for whether they were virgins at Time 1. This finding confirmed earlier evidence that, in this sample, having sex predominantly occurs within the context of a steady partner relationship.

Finally, we also found several effects of the background variables. Not surprisingly, older respondents were more likely to be sexually experienced and to have a steady partner than younger ones; and males were less sexually assertive than females (a standardized effect estimate of  $-.16$ ,  $p < .01$ ).

#### *Moderator Analysis: Age $\times$ Parenting Styles Interactions*

In the previous analysis it was assumed that the strength of the various effects would not vary as a function of other variables. As reported earlier, we did not find any evidence that there were interaction effects between the control/protection and care/involvement parenting styles (as suggested by Rollins & Thomas, 1979), nor were there interaction effects of gender. However, given that substantial changes in sexual experience as a function of age can be expected, it seemed desirable to check for moderator effects of age as well. Therefore, the sample was split in two subsamples (15- to 16-year-olds,  $n = 124$ ; and 17- to 18-year-olds,

$n = 129$ ). Then the final model, excluding age, was fitted for both groups successively and separately, and the parameter estimates in those models were systematically compared. The results were roughly the same for both age groups. However, it turned out that the effect of care/involvement on Time 1 sexual experience was significantly stronger for the youngest age group (a standardized effect of  $-.24$ ,  $p < .01$ ) than for the oldest age group (an effect of  $-.11$ , *ns*). Constraining those effects to be equal across groups yielded an increase of 10.05 chi-square points with only 1 degree of freedom extra ( $p < .001$ ); thus, the difference between these two estimates is significant. In all other respects, the same model was retained for both groups. Thus, this moderator analysis provided some evidence that maternal care/involvement was more salient in accounting for adolescents' sexual experience for those in early adolescence than for those in later adolescence.

### Discussion

In the present study, we sought to increase insight into the relations among parenting styles, adolescent sexual self-efficacy, and adolescent sexual experience. We used structural equation modeling to test a longitudinal model, drawing on data from 253 British adolescent-mother pairs. We assumed that high maternal involvement and relatively low control would lead the adolescent to develop an internal locus of control, leading to higher sexual self-efficacy. The results reported here provide moderate support for those expectations. Furthermore, follow-up analysis indicates that the effect of the involved parenting style upon Time 1 sexual experience is stronger for the 15- to 16-year-olds than for the 17- to 18-year-olds, suggesting that parental relationships are more salient in accounting for sexual experience in early adolescence than in late adolescence.

Then we examined two competing hypotheses regarding the effects of sexual self-efficacy. The first stated that sexually assertive respondents would be less likely to be sexually experienced, because they would be more able to say no to their partner if they did not feel ready to have sex with him or her. The alternative hypothesis stated that sexually assertive respondents would be more likely to be sexually experienced than others, because they would also be more able to realize their intentions if they did want to have sex with someone. Indeed, given that previous research has shown that adolescents, especially boys, generally are quite willing to have sexual intercourse, even if they do not know the intended partner very well (Carrol, Volk, & Hyde, 1985; Tavis & Semin, 1997), the latter hypothesis could have been considered quite plausible.

In general, our findings are consistent with the assumption that maternal support and control attempts influence the teenager's sexual behavior both directly and via their child's sexual efficacy. The direct effect may be interpreted in terms of the transmission of sexual values from mother to child; this transmission would be smoothed by good mother-child relations. The indirect effect, via sexual self-efficacy, contributes independently from this direct effect to the adolescent's sex-

ual experience. This suggests that transmission of maternal sexual standards to the child is only one way in which parents can influence their teenager's sexual behavior. One other way in which parents may influence adolescent sexual behavior is by creating circumstances that promote or impede the development of an internal locus of control. It must be noted, however, that sexually efficacious respondents were more rather than less likely to be (and become) sexually experienced than others. Thus, it appears that involved mothers who do not overly control their teenagers contribute to a relatively early sexual initiation of their child—possibly the reverse of what they may have wanted to achieve.

There are limitations to this study. Possibly the most important drawback of our data set is that we could not distinguish among what might be called good and bad sexual experiences. Our measure of sexual experience measured just that—whether the adolescent was sexually experienced. In the theoretical framework used, however, it would have been desirable to have measures of positive and negative sexual experiences instead (for example, operationalized in terms of the number of occasions on which one was able to realize one's intentions). Rather than test a crude and undifferentiated hypothesis such as "sexually efficacious adolescents will be more likely to be sexually experienced than others," we would have been able to test whether such adolescents were likely to have relatively many positive and relatively few negative sexual experiences, data that could possibly shed more light on the effects of sexual self-efficacy on sexual experience.

Second, although our results are consistent with the notion that mothers' parenting styles affect adolescent sexual experience and self-efficacy, it must be acknowledged that we failed to demonstrate longitudinal effects of the parenting variables. That is, although we found the expected effects of the mothers' parenting styles on Time 1 adolescent sexual experience and self-efficacy, the corresponding effects of parenting styles on Time 2 adolescent sexual experience and self-efficacy were absent. This finding implies that parental relationships are rather unimportant in determining the sexual attitudes and experience of late adolescents; insofar as the sexual attitudes and experience of our respondents changed between the two waves of the study, this change was unrelated to parental rearing practices. However, our results show that parental relationships are considerably more important in shaping and influencing the sexual attitudes and behavior of early adolescents. Thus, although parents can influence the sexual attitudes of their young teenagers, their influence diminishes as the teenagers get older. Practically speaking, this finding means that parents probably can prevent very early sexual initiation of their children, but they cannot influence their children's sexual attitudes and behavior at a later age.

Other limitations of the present study pertain to the fact that our measures of the mothers' parenting styles were not standardized, that only mothers were interviewed, and that the proportions of variance explained in the variables were generally rather low (with the exception of Time 2 sexual self-efficacy, but this is

mainly attributable to the lagged effect of Time 1 sexual self-efficacy). Although these are obviously important limitations of the research reported here, results gained from this study can provide critical insights into the development of sexual attitudes and behavior and into the role of parents and psychological characteristics in this process.

The results reported here, although preliminary and with limitations, have theoretical and practical implications for counseling interventions with children and parents. Specifically, parents should be educated about the importance of the ways they interact with their children as they approach adulthood. Our results clearly underline the significance of styles of interaction between parent and child for the psychosocial and sexual development of children. Thus, during counseling interventions with parents, counselors may rightfully stress the importance of parental involvement in the sexual development of children.

## REFERENCES

- Barnes, G. M., & Farrell, M. P. (1992). Parental support and control as predictors of adolescent drinking, delinquency, and related problem behaviors. *Journal of Marriage and the Family*, 54, 763-776.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588-606.
- Breakwell, G. M., & Fife-Shaw, C. (1992). Sexual activities and preferences in a United Kingdom sample of 16- to 20-year-olds. *Archives of Sexual Behavior*, 21, 271-293.
- Burgess, J. (1973). *Influence of family relationships on the sexual behavior of college students in Norway and the United States*. Unpublished doctoral dissertation, University of Illinois-Champaign.
- CACI. (1989). *ACORN user's guide*. London: CACI Marketing Services.
- Carrol, Z. L., Volk, K. D., & Hyde, J. S. (1985). Differences between males and females in motives for engaging in sexual intercourse. *Archives of Sexual Behavior*, 14, 131-139.
- Cronbach, L. J. (1986). *Essentials of psychological testing* (4th ed.). New York: Harper & Row.
- Deci, E. L., Schwartz, A. J., Sheinman, L., & Ryan, R. M. (1981). An instrument to assess adults' orientations toward control versus autonomy with children: Reflections on intrinsic motivation and perceived competence. *Journal of Educational Psychology*, 73, 642-650.
- DeLamater, J., & MacCorquodale, P. (1979). *Premarital sexuality: Attitudes, relationships, behavior*. Madison: University of Wisconsin Press.
- Dweck, C. S., & Elliott, E. S. (1983). Achievement motivation. In P. H. Mussen (Ed.), *Handbook of child psychology* (Vol. 4, 4th ed., pp. 124-154). New York: Wiley.
- Fisher, T. D. (1986). An exploratory study of parent-child communication about sex and the sexual attitudes of early, middle, and late adolescents. *The Journal of Genetic Psychology*, 147, 543-557.
- Gordon, D., Nowicki, S., & Wickern, F. (1981). Observed maternal and child behavior in a dependency-producing task as a function of children's locus of control orientation. *Merrill-Palmer Quarterly*, 27, 43-51.
- Grolnick, W. S., Deci, E. L., & Ryan, R. M. (1991). Inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of Educational Psychology*, 83, 508-517.

- Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology, 81*, 143-154.
- Hogan, D. P., & Kitagawa, E. M. (1985). The impact of social status, family structure, and neighborhood on the fertility of Black adolescents. *American Journal of Sociology, 90*, 825-855.
- Inazu, J. K., & Fox, G. L. (1980). Maternal influence on the sexual behavior of teenage daughters. *Journal of Family Issues, 1*, 81-102.
- Jessor, S., & Jessor, R. (1974). Maternal ideology and adolescent problem behavior. *Developmental Psychology, 10*, 246-254.
- Jessor, S., & Jessor, R. (1975). Transition from virginity to nonvirginity among youth: A social psychological study over time. *Developmental Psychology, 11*, 473-484.
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL-8* (computer manual). Chicago: Scientific Software.
- Loewenstein, G., & Furstenberg, F. (1991). Is teenage sexual behavior rational? *Journal of Applied Social Psychology, 21*, 957-986.
- Lohmöller, J. B. (1986). *LVPS 1.6* (computer manual). Köln: Zentralarchiv für Empirische Sozialforschung, Universität zu Köln.
- Marsh, H. W., Balla, J. R., & MacDonald, R. P. (1988). Goodness-of-fit indexes in confirmatory factor analysis: The effect of sample size. *Psychological Bulletin, 103*, 391-410.
- Miller, B. C., & Fox, G. L. (1987). Theories of adolescent heterosexual behavior. *Journal of Adolescent Research, 2*, 269-282.
- Miller, P. Y., & Simon, W. (1974). Adolescent sexual behavior: Context and change. *Social Problems, 22*, 58-76.
- Newcomer, S., & Udry, J. R. (1987). Parental marriage status effects on adolescent sexual behavior. *Journal of Marriage and the Family, 49*, 235-240.
- Palacios, J. (1996). Proverbs as images of children and childrearing. In C. P. Hwang, M. E. Lamb, & I. E. Sigel (Eds.), *Images of childhood* (pp. 75-98). Mahwah, NJ: Erlbaum.
- Rollins, B. C., & Thomas, D. L. (1979). Parental support, power, and control techniques in the socialization of children. In W. R. Burr, R. Hill, F. I. Nye, & I. L. Neiss (Eds.), *Contemporary theories about the family: Research-based theories* (Vol. 1, pp. 317-364). New York: The Free Press.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external locus of control of reinforcement. *Psychological Monographs, 80*, issue 609.
- Schwarz, N., & Sudman, S. (Eds.). (1994). *Autobiographical memory and the validity of retrospective reports*. New York: Springer.
- Taris, T. W., & Bok, I. A. (1996). Parenting styles and scholastic achievement during adolescence: A retrospective study. *Early Child Development and Care, 121*, 67-83.
- Taris, T. W., & Semin, G. R. (1995). Affects adolescent sexual behaviour their attitudes concerning sex? *International Journal of Adolescence and Youth, 5*, 139-156.
- Taris, T. W., & Semin, G. R. (1997). Gender as a moderator of the effects of the love motive and relational context on sexual experience. *Archives of Sexual Behavior, 26*, 159-180.
- Taris, T. W., & Semin, G. R. (in press). Parent-child interaction during adolescence, and the adolescent's sexual experience: Control, closeness, and conflict. *Journal of Youth and Adolescence*.
- Taris, T. W., Semin, G. R., & Bok, I. A. (in press). Quality of family interaction and inter-generational transmission of values: The case of sexual permissiveness. *The Journal of Genetic Psychology, 159*(2).

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